

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

ASSOCIATE POWER OF ATTORNEY

Commissioner for Patents

P.O. Box 1450

Alexandria, VA 22313-1450

The undersigned, being an attorney of record in the below-identified patents and/or applications hereby grants associate power of attorney to the registered practitioner(s) assigned to **Customer No. 38396** and

John J. Bruckner, Reg. No. 35,816,

each an attorney or agent of the law firm of JOHN BRUCKNER PC, to prosecute the below-identified patent(s) and/or application(s) and to transact all business in the Patent and Trademark Office connected therewith and hereby revokes the associate power of attorney (if any) to Customer No. 25094.

2500940.991120	UBAT1120	346.0	08/873,252	11-Jun-97	6078392	20-Jun-00	Direct-To-Digital Holography, Holographic Interferometry, and Holography
2500940.991240	UBAT1240	629.0	09/296,143	21-Apr-99	6355541	12-Mar-02	Method for Transfer of Thin-Film of SiC via Implantation and Wafer Bonding
2500940.991250	UBAT1250	665.0	60/128,196	7-Apr-99	NA	NA	Electrostatically Focused Addressable Field Emission Array Chips (EFA's) For High Speed Massively Parallel Maskless Digital e-Beam Direct Write Lithography and Scanning Electron Microscopy
2500940.991160	UBAT1160	0655.0	09/404,009	23-Sep-99	6603818	5-Aug-03	A Time Domain Transceiver Architecture for Low Power Communications
2500940.991161	UBAT1160-1	0655.2	10/082,568	4-Mar-02	6606350	12-Aug-03	A Time Domain Transceiver Architecture for Low Power Communications

2500940.991162	UBAT1160-2	0655.3	10/082,773	4-Mar-02	6625229	23-Sep-03	A Time Domain Transceiver Architecture for Low Power Communications
2500940.991163	UBAT1160-3	0655.4	10/082,569	4-Mar-02	6621878	16-Sep-03	A Time Domain Transceiver Architecture for Low Power Communications
2500940.991262	UBAT1260-2	0665.1 CIP	09/368,919	5-Aug-99	6498349	24-Dec-02	Electrostatically Focused Addressable Field Emission Array Chips (EFA's) For High Speed Massively Parallel Maskless Digital e-Beam Direct Write Lithography and Scanning Electron Microscopy
2500940.991263	UBAT1260-3	665.8	10/260,321	30-Sep-02			Electrostatically Focused Addressable Field Emission Array Chips (EFA's) For High Speed Massively Parallel Maskless Digital e-Beam Direct Write Lithography and Scanning Electron Microscopy
2500940.991200	UBAT1200	0526.0	09/396,997	15-Sep-99	6344366	5-Feb-02	Fabrication of Highly Textured LiCoO ₂ Films by Rapid Thermal Annealing
2500940.991201	UBAT1200-1	526.2	09/818,465	27-Mar-01	6555270	29-Apr-03	Fabrication of Highly Textured LiCoO ₂ Films by Rapid Thermal Annealing
2500940.991202	UBAT1200-2	526.3	09/818,490	27-Mar-01	6562518	13-May-03	Fabrication of Highly Textured LiCoO ₂ Films by Rapid Thermal Annealing
2500940.991100	UBAT1100	663.0	09/398,347	17-Sep-99	6509808	21-Jan-03	High Thermal Conductivity Lossy Dielectric Using a Multilayer Configuration (claims 1-11)
2500940.991101	UBAT1100-1	663.1	09/837,891	18-Apr-01	6579393	17-Jun-03	High Thermal Conductivity Lossy Dielectric Using a Multilayer Configuration (claims 12-21)

2500940.991130	UBAT1130	720.0	09/397,153	15-Sep-99	6455844	5-Sep-02	A Table-Top Apparatus for the Single-Atom Detection of Carbon-14
2500940.991190	UBAT1190	732.0	09/449,844	26-Nov-99	abandon	abandon	Particle Deposition Methods for High Rate Epitaxial Growth of Carbon Nanotubes and other Crystalline Materials (claims 1-8 & 14-15)
2500940.991191	UBAT1190-1	732.1	09/997,600	28-Nov-01			Particle Deposition Methods for High Rate Epitaxial Growth of Carbon Nanotubes and other Crystalline Materials (claims 9-13 & 16-28)
2500940.991270	UBAT1270	303.0	09/396,998	15-Sep-99	6259374	10-Jul-01	Passive Pavement Mounted Acoustical Driver Alert Mechanism
2500940.991180	UBAT1180	725.0	09/395,378	14-Sep-99	6313479	6-Nov-01	Self-Organized Formation of Quantum Dots of a Material on a Substrate
2500940.991181	UBAT1180-1	725.1	09/816,698	23-Mar-01	abandon	abandon	Self-Organized Formation of Quantum Dots of a Material on a Substrate
2500940.991280	UBAT1280	517.0	09/461,566	14-Dec-99	6436339	20-Aug-02	Mn Addition For Improved Fluidity of Case B2-Phase FeAl Alloys
2500940.991121	UBAT1120-1	777.0	09/477,267	4-Jan-00	6525821	25-Feb-03	Improvements To Acquisition and Replay Systems (claims 1-28)
2500940.991122	UBAT1120-2	777.3	10/166,859	11-Jun-02			Improvements To Acquisition and Replay Systems (claims 29-52)
2500940.991123	UBAT1120-3	777.10	10/421,448	23-Apr-03			Spatially Heterodyned Holograms
2500940.991290	UBAT1290	538.0	09/676,401	29-Sep-00	6556942	29-Apr-03	Short-Range Radiolocation System and Methods
2500940.991300	UBAT1300	678.0	09/671,636	27-Sep-00			Hybrid Spread-Spectrum Technique for Expanding Channel Capacity
2500940.991210	UBAT1210	842.1	09/810,531	15-Mar-01	6692324	17-Feb-04	Field Emission Devices Having Carbon Nanofiber Emitters

2500940.991310	UBAT1310	903.0	09/795,660	27-Feb-01	6649431	18-Nov-03	Method for Mass Production of Nanoscale Carbon Tips with Cylinder-On-Cone Shapes
2500940.991311	UBAT1310-1	903.2	10/715,057	17-Nov-03			Method for Mass Production of Nanoscale Carbon Tips with Cylinder-On-Cone Shapes
2500940.991170	UBAT1170	923.0	10/036,189	27-Dec-01	6617580	9-Sep-03	Design for A Dedicated Electron Holography Microscope
2500940.991140	UBAT1140	909.0	09/860,841	17-May-01	6563893	13-May-03	Method for Improved AM Broadcast Reception
2500940.991141	UBAT1140-1	909.2	10/304,338	26-Nov-02			Method for Improved AM Broadcast Reception
2500940.991320	UBAT1320	866.0	09/939,303	24-Aug-01	6744518	1-Jun-04	Interferometric Source of Two-Color, Two-Beam Entangled Photons
2500940.991330	UBAT1330	880.0	09/938,843	24-Aug-01	6744518	1-Jun-04	Optical Microscope Using an Interferometric Source of Two-Color, Two-Beam Entangled Photons
2500940.991470	UBAT1470	915.0	10/226,164	22-Aug-02	6578054	13-Jan-04	Quantum Channel for the Transmission of Information
2500940.991110	UBAT1110	912.0	10/817,759	31-Dec-03			Multipath-Resistant Hybrid Spread-Spectrum Radio Transmission Technique
2500940.991340	UBAT1340	978.0	60/322,929	18-Sep-01	NA	NA	Fabrication of Individually Electrically Addressable Carbon Nanofibers on Insulating Substrates
2500940.991341	UBAT1340-1	978.1	09/964,270	26-Sep-01			Fabrication of Individually Electrically Addressable Carbon Nanofibers on Insulating Substrates
2500940.991150	UBAT1150	0994.0	09/999,187	30-Nov-01	will issue	issue fee paid June 18	Laser Array Synchronization
2500940.991350	UBAT1350	1021.0	10/068,795	6-Feb-02			Controlled Alignment of Catalytically Grown Nanostructures in a Large Scale Synthesis Process
2500940.991360	UBAT1360	960.0	60/293,780	25-May-01			Improved Process for Fabricating Field Emission Devices with Carbon Tips
2500940.991361	UBAT1360-1	960.1	10/155,841	24-May-02			Improved Process for Fabricating Field Emission Devices with Carbon Tips

2500940.991362	UBAT1360-2	960.3	10/681,565	8-Oct-03			(Divisional) Improved Process for Fabricating Field Emission Devices with Carbon Tips
2500940.991370	UBAT1370	965.0	10/234,044	3-Sep-02	issue fee paid Jan. 29		Off-Axis Illumination for Improved Resolution in Direct-to-Digital Holography
2500940.991380	UBAT1380	966.0	10/234,043	3-Sep-02			Content-Based Off-Axis Illumination for Direct-to-Digital Holography
2500940.991390	UBAT1390	967.0	10/234,042	3-Sep-02			Rapid Acquisition of Off-Axis Illuminated Holograms for Direct-to-Digital Holography
2500940.991400	UBAT1400	929.0	10/349,579	23-Jan-03			Modified Design for a Michelson-, Mach-Zehner- or general, Off-Axis-Type Interferometer
2500940.991420	UBAT1420	976.0	10/726,446	3-Dec-03			Multidimensional Signal Modulation Method for High Data-Rate Transmission
2500940.991430	UBAT1430	977.0	10/726,475	3-Dec-03			Multicarrier Orthogonal Spread-Spectrum (MOSS) Data Transmission Method
2500940.991440	UBAT1440	679.0	09/653,788	1-Sep-00			Digital-Data Receiver Synchronization Method and Apparatus
2500940.991441	UBAT1440-1	679.6	10/722,274	25-Nov-03			Digital-Data Receiver Synchronization Method and Apparatus
2500940.991450	UBAT1450	656.0	09/653,394	9/1/00 (12/18/00 effective)	abandon	abandon	Wireless Spread-Spectrum Telesensor Chip with Synchronous Digital Architecture
2500940.991451	UBAT1450-1	656.2	09/942,308	29-Aug-01			Wireless Spread-Spectrum Telesensor Chip with Synchronous Digital Architecture
2500940.991460	UBAT1460	642.0	09/660,743	13-Sep-00	6744806	1-Jun-04	Fast Synchronizing High-Fidelity Spread-Spectrum Receiver
2500940.991480	UBAT1480	544.0	09/406,280	24-Sep-99	6533733	18-Mar-03	Implantable Intracranial and Cerebrospinal Fluid Pressure Monitor
2500940.991481	UBAT1480-1	544.6	10/374,928	24-Feb-03			Implantable Intracranial and Cerebrospinal Fluid Pressure Monitor
2500940.991490	UBAT1490	933.0	10/421,444	23-Apr-03			Technique for Obtaining Two-Wavelength Differential-Phase Direct-to-Digital Heterodyned Holograms


2500940.991491	UBAT1490-1	933.1	10/607,824	27-Jun-03			Method for Recording Multiple Spatially-Heterodyned Direct to Digital SHHs in One Digital Image
2500940.991492	UBAT1490-2	933.2	10/607,840	27-Jun-03			Method for Faster Processing of Multiple Spatially-Heterodyned DDH
2500940.991500	UBAT1500	1199.0	10/408,294	7-Apr-03			Parallel Macromolecular Delivery and Biochemical/Electrochemical Interface to Whole Cells Employing Carbon Nanofibers
2500940.991510	UBAT1510	1224.0	10/649,251	26-Aug-03			Spatial-Heterodyne Interferometry for Transmission (SHIFT) Measurements
2500940.991520	UBAT1520	1225.0	10/649,474	26-Aug-03			Spatial-Heterodyne Interferometry for Reflection and Transmission (SHIRT) Measurements
2500940.991530	UBAT1530	1208.0	10/716,770	19-Nov-03			Vertically Aligned Carbon Nanofiber Scanning Probe Microscope Tips
2500940.991540	UBAT1540	1244.0	10/770,857	3-Feb-04			An Efficient Tool for Control of Friction at the Nanoscale
2500940.991550	UBAT1550	1261.0	10/774,699	9-Feb-04			FABRICATION OF NANOCONDUITS USING ALIGNED NANOSTRUCTURE TEMPLATES
2500940.991560	UBAT1560	1353.0	10/840,092	6-May-04			Marine Asset Security and Tracking (MAST) System
2500940.991570	UBAT1570	1356.0	10/840,553	6-May-04			Space Charge Dosimeters for Extremely Low Power Measurements of Radiation in Shipping Containers

Please direct all telephone calls to John Bruckner at 512-694-9145. Please send all correspondence to:

John J. Bruckner
JOHN BRUCKNER PC
5708 Back Bay Lane
Austin, TX 78739-1723

Date: 06-25-04

Respectfully submitted, .


George L. Craig
Registration No. 29293
UT-Battelle, L.L.C.
P.O. Box 2008
Oak Ridge, TN 37831-8243